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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,063	12/02/2003	Zugen Ni	33811/US	2574
<div>7590 01/17/2007 Min (Amy) S. Xu DORSEY &amp; WHITNEY LLP Intellectual Property Department 50 South Sixth Street, Suite 1500 Minneapolis, MN 55402-1498</div>			<div>EXAMINER SNIDER, THERESA T</div> <div>ART UNIT 1744 PAPER NUMBER</div>	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/17/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/726,063

Applicant(s)

NI, ZUGEN

Examiner

Theresa T. Snider

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11/3/2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 6-10 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 6-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen et al. as in view of Stade et al..

Larsen et al. discloses a similar silencer however fails to disclose the relationship of the cross-sectional area of the pores.

Larsen et al. discloses an exhaust channel for passage of exhaust airflow (fig. 1, #11,12).

Larsen et al. discloses at least one silencing board with a plurality of pores mounted in the exhaust channel (fig. 1, #9, fig. 4, #17). Stade et al. discloses the use of a silencing board with a plurality of pores in an exhaust channel wherein the number and size of the pores is a matter of design choice (figs. 2-3, #42, col. 3, lines 54-61). It would have been obvious to one of ordinary skill in the art to determine the most appropriate passage area of the pores of Larsen et al. to allow for the most effective noise decrease dependent on the capacity of the vacuum source and back pressure, as disclosed in Stade et al..

With respect to claim 7, Larsen et al. discloses the board mounted in an orientation perpendicular to the direction of airflow (fig. 1, #9, arrows).

With respect to claim 9, Larsen et al. discloses a first and second silencing board (fig. 1, #7,9). Stade et al. discloses a plurality of silencing boards having a plurality of round pores (fig. 3, #40,42). It would have been obvious to one of ordinary skill in the art to provide the round pores of Stade et al. in Larsen et al. to allow for the most effective

noise decrease dependent on the capacity of the vacuum source and back pressure, as disclosed in Stade et al..

With respect to claim 10, Larsen et al. discloses the boards being parallel to each other (fig. 1, #7,9).

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen et al. in view of Stade et al. as applied to claim 7 above, and further in view of Murty.

Larsen et al. in view of Stade et al. discloses a similar silencer however fails to disclose the diameter of the pores.

Murty discloses the use of a silencing board with a plurality of pores in an exhaust channel wherein the pores have a diameter less than 6 mm (fig. 2, #19a,f, col. 2, lines 59).

It would have been obvious to one of ordinary skill in the art to make the pores of Larsen et al. in view of Stade et al. less than 6 mm to allow for the most effective noise decrease dependent on the capacity of the vacuum source and back pressure.

#### ***Response to Arguments***

4. Applicant's arguments filed 11/3/2006 have been fully considered but they are not persuasive. Applicant argues his design results in many advantages/improvements to optimize performance that are not simply a design choice. This argument is not persuasive because Stade et al. discloses the number of holes and their size(indirectly, their cross-sectional area) in a silencer for exhaust is 'a matter of design' and 'may be ascertained by experiment'. The specification fails to disclose any unexpected results.

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Applicant argues Stade, Murty and Larsen pertain to different technical fields of the present invention. Examiner agrees with this argument however, they are all solving a common problem, silencing airflow in an exhaust channel.

Applicant argues Larsen fails to disclose a plurality of round pores. This argument is deemed moot in view of the new grounds of rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (571) 272-1277. The examiner can normally be reached on Monday-Friday (5:30am-2:00pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**THERESA T. SNIDER  
PRIMARY EXAMINER**

Theresa T. Snider  
Primary Examiner  
Art Unit 1744

1/8/07